

I claim:

1. A cutting head for cutting a food product on a cutting apparatus, comprising:  
an upper mounting ring;  
a lower mounting ring;

a plurality of cutter support segments having generally arcuate inner and outer surfaces disposed generally in a circular array defining a central portion about a central axis, each cutter support segment having an upper portion attached to the upper mounting ring, opposed forward and rear edge portions, and a lower portion attached to the lower mounting ring;

a plurality of cutting blades each having a cutting edge and an opposed rear edge, each said cutting blade attached to the forward edge portion of each cutter support segment so as to define a gate opening between the cutting edge and an adjacent cutter support segment; and

first and second pivot pins extending coaxially opposed from one another from the upper and lower portions of each of the cutter support segments at a location closely adjacent to a forward edge of the forward edge portion of the cutter support segment and substantially near the cutting edge of the cutting blade, each of the cutter support segments pivotally mounted on the upper and lower mounting rings about a pivot axis defined by the first and second pivot pins and pivotally movable between a range of motion defined between a first position wherein the cutting edge of the cutting blade is positioned closely adjacent a rear portion of an adjacent cutter support segment, and a second position wherein said cutting blade is disposed at an acute angle relative to the radii of the upper and lower mounting rings and generally directed towards the central portion of the circular array of cutter support segments.

2. The cutting head according to claim 1, wherein the pivot pins are located on the cutter support segments between the rear and cutting edges of the cutting blade.

3. The cutting head according to claim 1, wherein the cutting edge of the cutting blade extends a short distance relative to its width beyond the forward edge portion of the cutter support segment, the width of the cutting blade defined between the rear and cutting edges thereof.

4. The cutting head according to claim 3, wherein the distance from which the cutting blade extends beyond the forward edge portion of the cutter support segment is less than 20% of its overall width.

5. The cutting head according to claim 1, further comprising:  
diametrically opposed flanges extending from the outer surface of the upper and lower portions of each of the cutter support segments at the rear edge portion thereof, each of the flanges including an adjustment pin projecting normally from the flanges; and

an adjustment member for each adjustment pin having an annular groove configured to receive a portion of the adjustment pin, the adjustment member engaging a respective one of the upper and lower mounting rings and oriented at an oblique angle relative to the radius of a respective one of the upper and lower mounting rings.

6. The cutting head according to claim 5, wherein the upper and lower mounting rings include a plurality of recesses along an outer periphery thereof, each recess arranged at the oblique angle of the adjustment member and configured to receive at least a portion of the adjustment pin and the adjustment member.

7. The cutting head according to claim 1, wherein the upper and lower mounting rings include a plurality of arcuate slots defined therethrough and each corresponding to one of the cutter support segments attached to the upper and lower mounting rings, the arcuate slots configured to receive a fastener device that extends therethrough to engage the cutter support segments and permit movement of the cutter support segments relative to the fastener devices over the range of motion between the first and second pivot portions.

8. The cutting head according to claim 7, wherein the size of the arcuate slots are defined by the range of adjustment of the cutter support segments.

9. The cutting head according to claim 1, wherein the distance between an axis of the pivot pins and a rear edge of the cutter support segments is within the range of 7 to 8.5 times the distance between the pivot pin axis and the cutting edge of the cutting blade.

10. The cutting head according to claim 1, wherein the cutting edge of the cutting blade comprises a substantially straight linear edge.

11. The cutting head according to claim 1, wherein the cutting edge of the cutting blade comprises a series of curves having opposed curvatures.

12. The cutting head according to claim 11, wherein an inner wall of the cutter support segment includes a profile comprising a series of curves having opposed curvatures corresponding to the cutting edge of the cutting blade.

13. The cutting head according to claim 1, wherein the cutting edge of the cutting blade comprises a series of V-shaped grooves.

14. The cutting head according to claim 13, wherein an inner wall of the cutter support segment includes a profile comprising a series of V-shaped grooves corresponding to the cutting edge of the cutting blade.